

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU03/00384

| A. CLASSIFICATION OF SUBJECT MATTER | | |
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| Int. Cl. ⁷ : C07D 307/20, 307/22, 307/24, 309/08, 309/10, 309/14; C07H 5/04, 7/02, 7/04 | | |
| According to International Patent Classification (IPC) or to both national classification and IPC | | |
| B. FIELDS SEARCHED | | |
| Minimum documentation searched (classification system followed by classification symbols) ELECTRONIC DATABASES, SEE BELOW | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CAS Files: Medline, Biosis, WPIDS, CA. Keywords: saccharide, sugar, library, scaffold, amino acid, mimetic | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | S. A. W. GRUNER et al. Carbohydrate Based Mimetics in Drug Design: Sugar Amino Acids and Carbohydrate Scaffolds. Chem. Reviews. February 2002, 102, pages 491-514. See whole document, and documents cited therein. | 1-29 |
| P, X | WO 02/32915 A1 (ALCHEMIA PTY LTD) 25 April 2002 See whole document, especially formulae Ib and Ic. | 1-9, 14-26, 29 |
| P, X | WO 02/32963 A1 (ALCHEMIA PTY LTD) 25 April 2002 See whole document, especially Examples 4, 5, 9 and 15 | 1-9, 14-26, 29 |
| <input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex | | |
| * Special categories of cited documents: "A" Document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family | | |
| Date of the actual completion of the international search 12 June 2003 | | Date of mailing of the international search report 20 JUN 2003 |
| Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustrialia.gov.au Facsimile No. (02) 6285 3929 | | Authorized officer STUART BARROW Telephone No : (02) 6283 2284 |

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| C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|---|---|-----------------------|
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | WO 98/08799 A1 (ALCHEMIA PTY LTD) 5 March 1998 See, for example, Figure 3. | 1-9, 14-26, 29 |
| X | SMITH et al. Synthesis of Oligomers of Tetrahydrofuran Amino Acids: Furanose Carbopeptides. Chem. Commun. 1998. Pages 2039-2040. See compounds 4, 6, and 12. | 1, 2 |

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos : 1-29, in part
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
The claims were considered too broad and too lacking in common technical features to allow a meaningful search of the claims as presently drafted, on economic grounds. The search was restricted according to the alleged inventive concept as communicated by the inventor, "a monosaccharide with
Continued in Supplemental Box

3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

There is no obvious "special technical feature" linking the compounds of the claims. Each individual compound claimed is therefore considered a separate invention.

The applicant has indicated that the intended special technical feature is "a monosaccharide with peptide mimetics attached." This feature is not explicitly represented in the present claims. This feature is also known in the art. No invitation to pay additional fees was made.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: I

peptide mimetics attached." Note that the search can not be considered to be complete with respect to the compounds claimed.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report | | Patent Family Member | | | |
|---|-----------|----------------------|-----------|----|--------------|
| WO | 200232915 | AU | 200195282 | | |
| WO | 200232963 | AU | 200195287 | | |
| WO | 9808799 | AU | 38422/97 | CN | 1234790 |
| | | HU | 200000069 | EP | 923528 |
| | | | | US | 2003027925 |
| | | | | | END OF ANNEX |

The groups X1 are independently selected from the group consisting of alkyl, alkenyl, alkynyl, heteroalkyl, acyl, arylacyl, heteroarylacyl, aryl, heteroaryl, arylalkyl and heteroarylalkyl of 1 to 20 atoms,

- 5 and any one of the protecting substituents may be removed prior to alkylation.